Mottled Duck Banding and Radio-telemetry in South Carolina

Project Partners:
SCDNR, Nemours Wildlife Foundation, Ducks Unlimited, Delta Waterfowl, Flyway Foundation, USFWS , Private Landowners

Goals

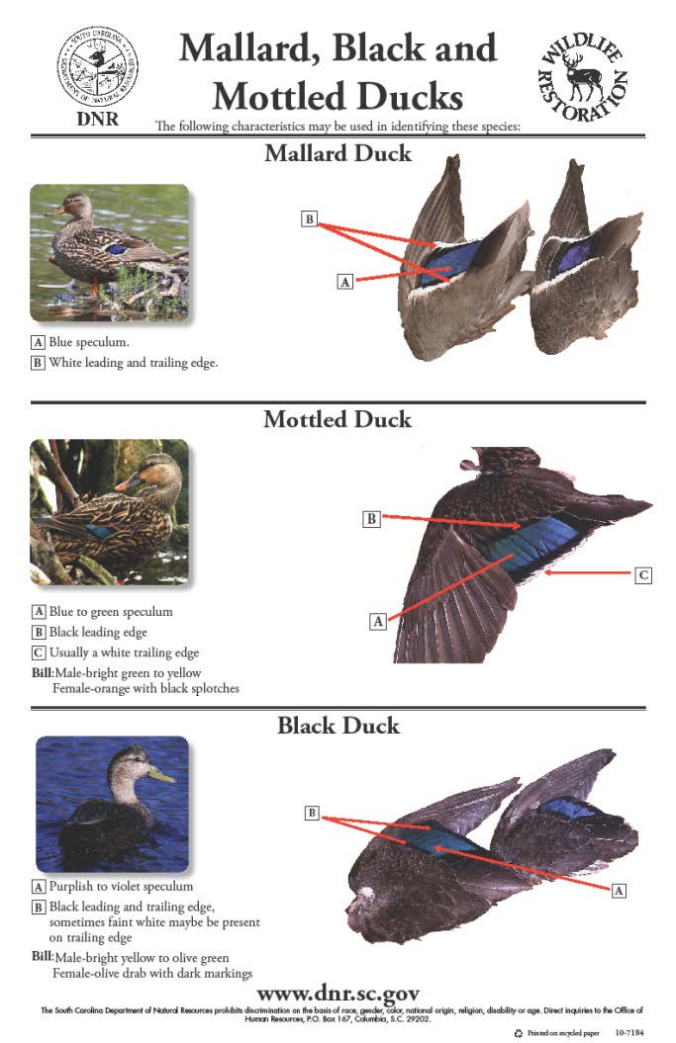
Banding Goal:

- Adequate sample size to estimate population and harvest rate.
- Collect information on intra and inter state movements.

Radio-telemetry Goal:

- Radio-mark 80 females each summer for 2010 and 2011.
- Track birds during fall and winter for general habitat use and movements
- Intensively monitor during the breeding season to characterize nesting and brood rearing habitat and determine brood survival.

The difference between:



DNR

Mallard, Black and Mottled Ducks

WILDLIFE RESTORATION

The following characteristics may be used in identifying these species:

Mallard Duck

A Blue speculum.
B White leading and trailing edge.

Mottled Duck

A Blue to green speculum
B Black leading edge
C Usually a white trailing edge
Bill: Male-bright green to yellow
Female-orange with black splotches

Black Duck

A Purplish to violet speculum
B Black leading and trailing edge, sometimes faint white maybe be present on trailing edge
Bill: Male-bright yellow to olive green
Female-olive drab with dark markings

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What do the sexes look like?

Female Mottled Duck

Male Mottled Duck

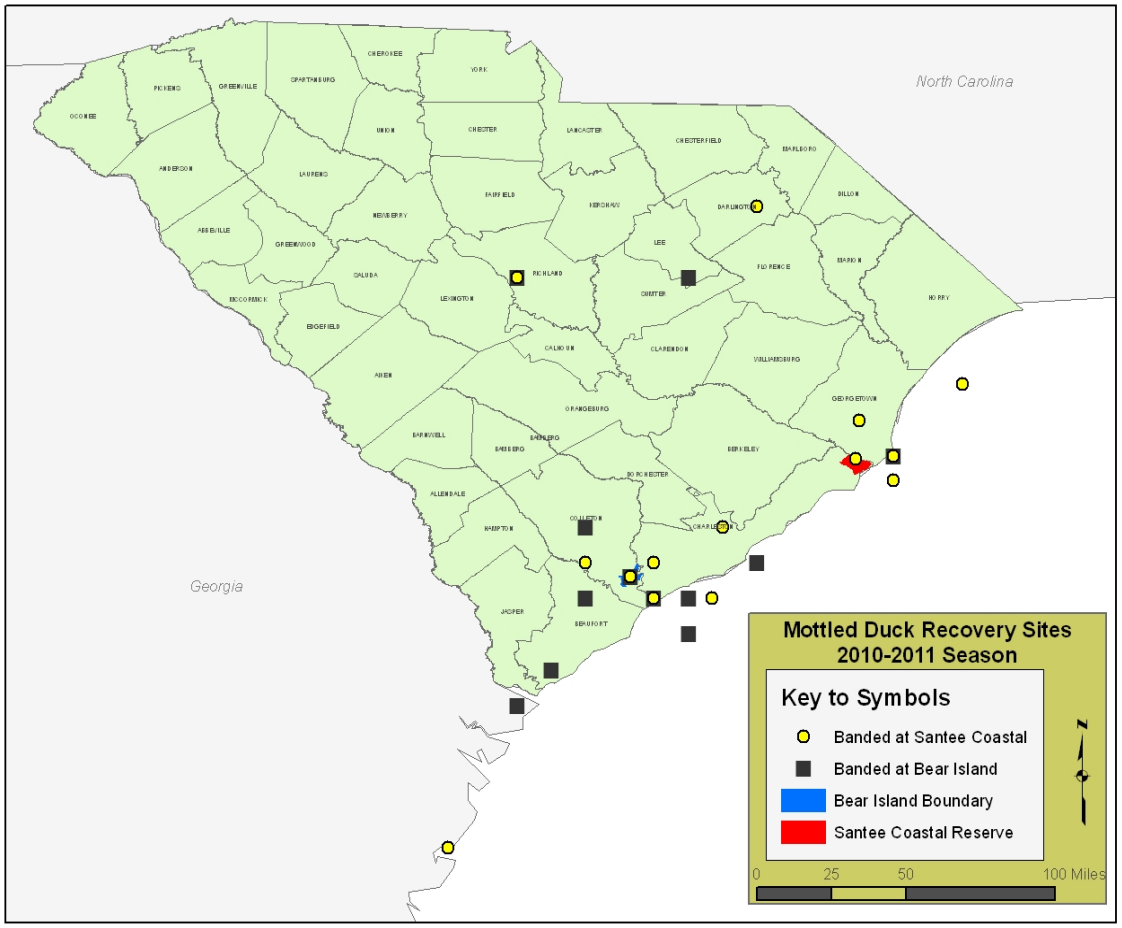
Capture Method

Birds are captured at night during late summer using an airboat and spotlights. Birds are captured by scooping with a dip net.

Banding Results

- 2008- 198
- 2009-357
- We had 8 direct recoveries in 08 and 26 in 09.
- Estimated average harvest rate of .08 for the two years combined
- Estimated average rate harvest for 08-09 and 09-10 seasons was 1653 birds
- Population estimate using this information 20,600
- In 2010 we banded 1129, and had 56 direct recoveries for a harvest rate of .07

Estimated Locations of Band Recoveries



Radio-Transmitters

40 females outfitted with implanted transmitters

40 females outfitted with backpack transmitters

MASH Unit

VET at Work

Radio-Tracking Method

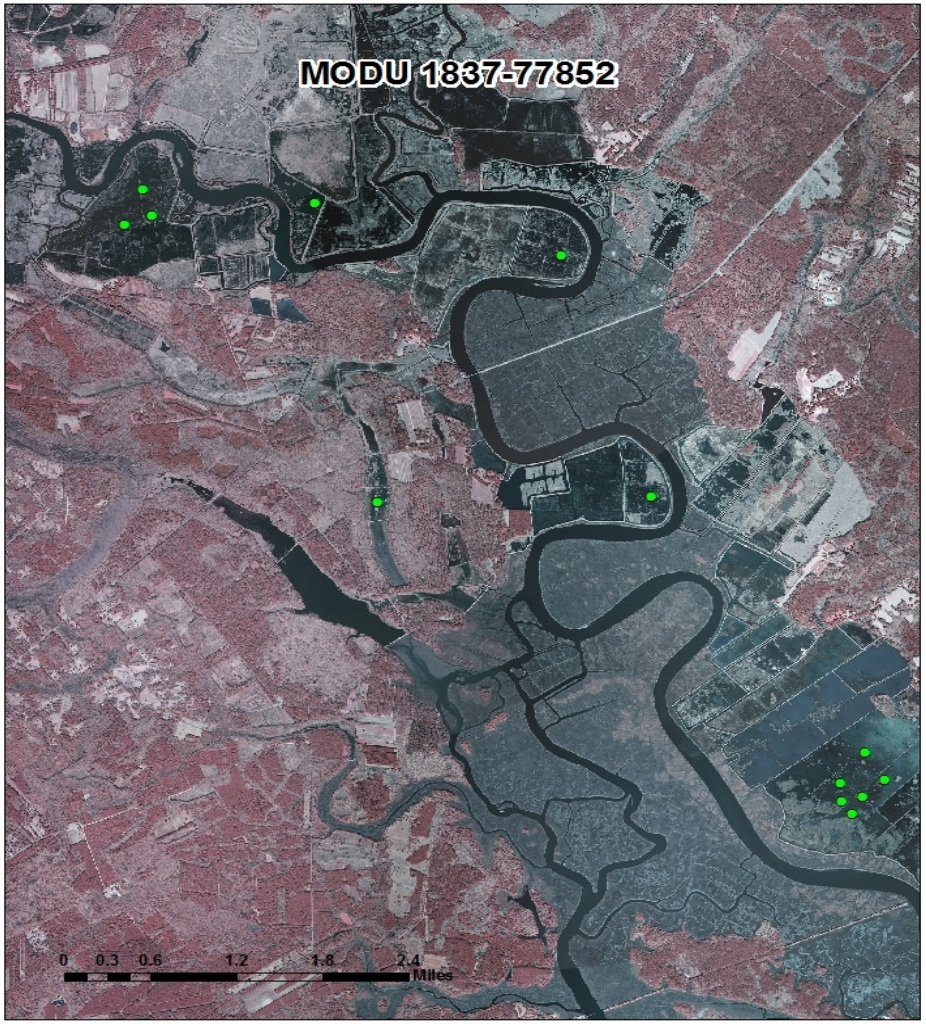
Cessna 170B used for aerial tracking

Radio Tracking Method

Strut-Mounted
“H”-antenna
on each side

Radio Tracking Method

Locations for MODU # 1837-77852



Radio Telemetry Early Results

- Currently 24 Transmitters emitting mortality signals
- Previous studies estimated home ranges at 500-700 sq. miles.
- Longest distance moved is 85 miles
- Inland movements recorded by band recoveries will be examined
- As of late April only 7 birds being tracked.

What happened ?

When technology fails !!

Nest Survey Results

What's next?

- Aerial tracking to see if we can find birds
- Graduate Student continues nest searching and monitoring.
- Evaluation of transmitter techniques and decision on which works best.
- Attempt to capture 80 more hens late this summer for another season of data.
- More banding to evaluate harvest rates,population levels, and distribution

QUESTIONS ?